

FIELD ORIENTED PIPELINE ARCHITECTURE FOR A PROGRAMMABLE DATA STREAMING PROCESSOR

ABSTRACT OF THE DISCLOSURE

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A field oriented pipeline processor for a data engine that can be programmed to recognize record and field structures of data received from a source such as a mass storage device. The processor has an interface for receiving field-delineated data from a field parser. The field parser parses non-field delineated data from a streaming data source into field delineated data under instruction from an external processing unit. The pipeline processor receives a field delineated data stream and employs logical arithmetic methods to compare fields with one another, or with values otherwise supplied by general purpose processors to precisely determine which records are worth transferring to memory of the more general purpose distributed processors. The architecture of the data engine allows for the use of substitution tables, temporary registers, and a data string register to assist in the efficiency and accuracy of the data engine processing.

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